Cold Weather and Mountain Environmental Injury Prevention and Treatment

Terminal Learning Objective

Action: Protect yourself and your fellow Soldiers against common cold weather and mountain environmental injuries

Condition: You are a Soldier deployed to the field in conditions that range from 50° to -60° F. You are given the Extended Cold Weather Clothing System (ECWCS), other issued cold weather clothing items, the issued cold weather sleep system with insulating pad, access to a warming shelter and the requirement to protect yourself and your fellow Soldiers against environmental injuries.

Standard: Apply preventive medicine countermeasures to prevent environmental injuries. Identify the signs and symptoms of

What is snow blindness?

- **Sunburn of the eyes (corneas)**

- **Signs and Symptoms:**

  - **eyes feel like there is sand in them**
  - **severe pain**
  - **pink or red eyes**
  - **extreme sensitivity to**

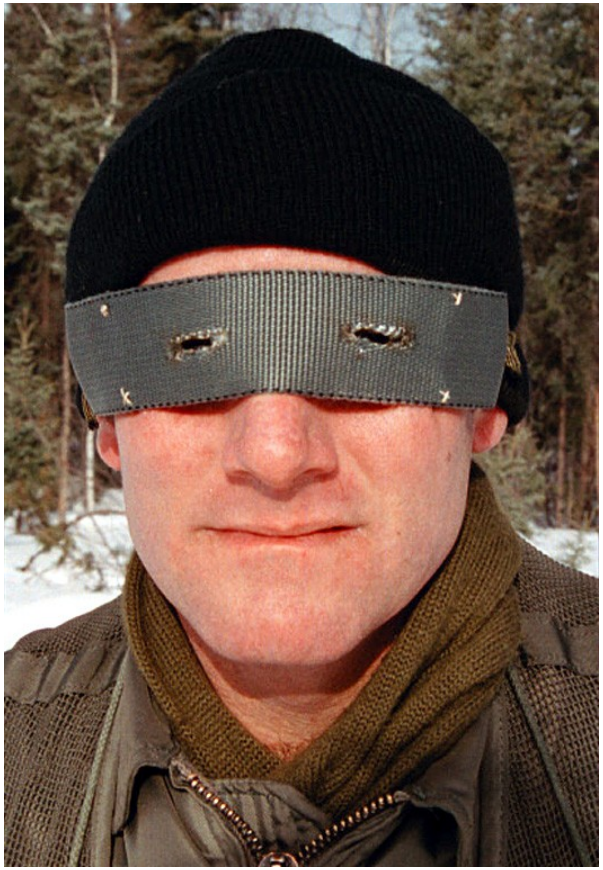
Snow blindness Treatment and Prevention

- **Treatment:**

  - **Loosely bandage the eyes with sterile gauze. Wet the gauze with cold water to help with pain.**
  - **Do not allow any exposure to light.**
  - **Provide care for the individual over the next 24-48 hours as the individual is essentially blind.**
  - **Administer OTC pain medications.**

- **Prevention: Wear Sunglasses or tinted goggles that provide UV protection.**

Improvised Slit Glasses



What is carbon monoxide poisoning?

- **Odorless, colorless gas that replaces oxygen in the blood stream and kills you.**

- **Caused by poorly ventilated stoves/heaters**

- **Early Signs and Symptoms:**
  - **Headache, Confusion, Fatigue, Excessive yawning**

- **Severe Cases:**
  - **Cherry red lips, unconsciousness, cardiac arrest**

CO Poisoning Treatment and Prevention

- **Treatment:**
  - **Move casualty to fresh air OR remove the source of CO and ventilate the shelter.**
  - **Administer oxygen.**
  - **Begin rescue breathing/CPR if breathing and/or heart has stopped.**
  - **Evacuate to definitive care.**

- **Prevention:**
  - **Use only Army approved heaters.**
  - **Ventilate shelters when running a heater/stove.**
  - **Operators fully licensed.**
  - **Shut the heater down if you suspect a problem.**
  - **DO NOT sleep in a running vehicle.**

What is giardia?

- **Waterborne paras**
- **Signs and Sympto**
  - **intense diarrhea**
  - **nausea**
  - **weakness**
  - **loss of appetite**

Giardia Treatment and Prevention?

- **Treatment: If you suspect giardia contact medical personnel.**

- **Prevention:**
  - **Use a treatment method for all questionable water sources**
  - **Bring water to a rolling boil OR**
  - **Use a water purification device.**
  - **Refer to FM 21-10 for guidance on water purification methods on a larger scale.**

Squad Stove and Water Filter

Identify, treat and prevent constipation

- **Infrequent and/or difficult movement of bowels.**

- **Treatment: Stool softeners, manual removal, surgery**

- **Prevention:**
  - **Void when you need to g**
  - **Hydrate and eat properl**
  - **Provide a sheltered latrine for Soldiers.**

What is heat exhaustion?

- **Early volume shock from dehydration.**

- **Signs and Symptoms**

  - **Increased heart rate**
  - **Increased respiratory rate**
  - **Headache**
  - **Dizziness**
  - **Nausea and vomiting**
  - **Thirst**
  - **Fatigue**
  - **Profuse sweating, cool clammy skin**

Heat Exhaustion Treatment and Prevention

- **Treatment:**
  - **Place casualty in a shady spot; pour water on the head and fan the casualty.**
  - **Hydrate and/or administer IV fluid.**
  - **Rest and contact a medic for further evaluation/ evacuation.**
- **Prevention:**
  - **Hydrate. Drink .5 to1 liter with each meal. Drink .25 liters of water for every 20 minutes of strenuous exercise.**
  - **Avoid overdressing for cold weather activities.**
  - **Monitor your urine output – it should be clear and you should have to urinate often.**
  - **Avoid diuretics.**

What is heat stroke?

- **Body core temperature is over 104° F.**

- **Also known as hyperthermia; this is a medical emergency.**

- **Signs and Symptoms**
  - **Altered level of consciousness.**
  - **Increased heart rate.**
  - **Increased respiratory rate.**
  - **Hot, red skin. Skin may be wet.**
  - **Loss of coordination.**
  - **Seizures.**

Heat Stroke Treatment and Prevention

- **Treatment:**
  - **Remove clothing that retains heat.**
  - **Keep the patient wet while you fan the body.**
  - **Apply ice packs under the armpits and in the groin area.**
  - **Massage arms and legs.**
  - **If possible, have the casualty hydrate; if not administer IV fluid.**
  - **DO NOT under any circumstance provide drugs (OTC or otherwise).**
  - **Evacuate to definitive care immediately.**

- **Prevention: Same measures as for heat exhaustion.**

What is hyponatremia?

- **Imbalance of electrolytes from drinking too much water. Also known as water intoxication.**

- **Signs and Symptoms**
  - **Headache.**
  - **Weakness.**
  - **Dizziness.**
  - **Nausea.**
  - **Sweaty skin.**
  - **Clear, copious urine output.**
  - **Lack of thirst.**
  - **Sloshing sounds in the stomach.**
  - **Altered level of consciousness in severe cases (requires evacuation).**

Hyponatremia Treatment and Prevention

- **Treatment:**
  - **Move to a shaded area and rest.**
  - **DO NOT allow casualty to drink.**
  - **Slowly allow casualty to eat (preferably salty) food.**
  - **Contact medic for evaluation and evacuation.**

- **Prevention:**
  - **Follow sensible hydration and dietary guidelines.**
  - **DO NOT drink large quantities of water.**
  - **DO NOT force subordinates to drink large quantities of water.**

Questions?

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